

Attorney Docket No: 0276-059
Attorney Customer No: 70978
Serial Number: 10/574,240

PATENT

REMARKS

The present application includes claims 1-8, 10-27, 33-37, 41-43, 45, 48, 51-52, 55-60, 62, 66-73, 79-82, 88-89 and 91-99. Claims 1, 3 and 89 were amended and claim 90 was cancelled. Applicant thanks the Examiner for indicating the allowability of claims 66-73.

Independent claim 1

Claims 1-8, 10-27, 33-36 and 91-98 stand rejected under 35 USC 103(a) as being unpatentable over Yaport et al. (US patent publication 2002/0178221) in view of Cai et al. (US patent publication 2005/0030966).

Applicant respectfully traverses the rejection and submits that the Examiner has not established a *prima facie* case of obviousness, as at least one limitation of claim 1 is not taught or suggested by Yaport or Cai.

Claim 1 requires:

“determining receivers designated to receive the multicast transmission that did not receive at least a portion of the data file;”

Applicant respectfully submits that his limitation is not taught or suggested by either Yaport or Cai.

Yaport describes a system which constantly transmits multiple streams of information ... so that at any time any client can subscribe to a particular multicast group for receiving the data (paragraph [0031]). In view of the providing of multiple channels by the system, the client can by joining, checking and rejecting streams find data it sought (paragraph [0064]). Therefore, Yaport does not need acknowledgements ([0022]), does not attempt to deliver the data file to receivers that did not receive at least a portion of the file and naturally does not determine receivers that did not receive at least a portion of the data file.

Cai describes apparatus for replays of MBMS data and re-conveyance of missing data ([0020]). This is done by “an automatic re-conveyance of event-related data packets by MBMS content provider 127. By re-conveying the data packets, each MS subscribing to the event is provided with an opportunity to capture missed data packets or to replay the information of earlier received data packets. The re-conveyance may occur at any time after the initial conveyance of the data but preferably is sufficiently distant in time from the initial conveyance to capture most late

joiners to the group and to allow for those who have temporarily left a coverage area of communication system 100 to return to the system's coverage area.” ([0044]).

Thus, Cai teaches providing the data packets a second time, so that the MSs missing data can acquire it and there is no need to determine receivers that did not receive at least a portion of the data file. Block 424 in Fig. 4A to which the Examiner referred, relates to a determination of the MS whether to receive the second transmission of the data and not to determining receivers that did not receive the data.

To emphasize this point, claim 1 was amended to make explicit, that which was already implicit in the claim, that the determining acts and the attempting to deliver are performed by the data server. Applicant notes that the elements of the data server are not necessarily located in the same location, as stated in the specification, for example on page 18, lines 15-16.

In addition, applicant respectfully submits that there is no rationale to combine Yaport and Cai. The Examiner stated that it would have been obvious “to implement Yaport with the teaching of Cai so that clients can subscribe to a particular or selected multicast group at any time and missing data or replays of data to subscribers is provided”. Applicant respectfully notes, however, that each of Yport and Cai suggests a solution to the problem of missing data and therefore there is no rationale in adding a different solution to the same problem.

The dependent claims are patentable at least because they depend on patentable independent claims. Nonetheless, at least some of the dependent claims add further patentability over the prior art.

Claim 25, for example, requires that receiving the acknowledgements comprises receiving a request for decryption keys. Applicant respectfully submits that this is not taught or suggested by Cai or Yaport. Referring to this claim, the Examiner referred to receiving a user key press on a keypad in Cai [0030], [0036], [0050]. Applicant respectfully notes that there is no connection between key presses of a keypad and decryption keys used for decrypting encrypted data.

New claim 100, for example, requires that the upcoming transmission has a limited duration. In Yaport, the transmissions are continuous.

Claim 27, for example, requires receiving the acknowledgements over a different network than the network on which the data file was multicast. Applicant notes that embodiments in accordance with this limitation appear in the specification on pages 37-39.

Regarding claim 27 the Examiner referred to paragraph [0017] of Yapor, which discloses retransmission within two minutes. Applicant respectfully submits that it is not clear what the Examiner perceives as the connection between retransmission after 2 minutes and use of different networks.

Independent claim 37

Claims 37, 41-43, 45, 48, 51, 52 and 55 stand rejected under 35 USC 103(a) as being unpatentable over Xu et al. (US patent publication 2006/0166653) in view of Dillon (US patent 6,728,878).

Applicant respectfully traverses the rejection and respectfully submits that the Examiner has not established a *prima facie* case of obviousness, as at least one limitation of claim 37 is not taught by either Xu or Dillon.

Claim 37 requires “receiving at least one key required for decrypting the at least one packet after receiving a sufficient number of packets for reconstructing the data file”.

As acknowledged by the Examiner, and discussed in detail in applicant’s previous response, this is not taught or suggested by Xu. Applicant respectfully submits that this is also not taught or suggested by Dillon.

Dillon describes transmitting packets of a document from a broadcast center 150 to a broadcast receiver 120. For each packet received, broadcast receiver 120 determines whether it has a key for the document (col. 6, lines 61-66). Each packet is decrypted as soon as it is received, eliminating the need to store both an encrypted and a decrypted version of the block (abstract). It is thus clear that Dillon does not teach or suggest “receiving at least one key required for decrypting the at least one packet after receiving a sufficient number of packets for reconstructing the data file”, as each packet is decrypted immediately upon receipt.

The Examiner added reference to acts F5 and F6 in table on col. 7 of Dillon. Applicant does not understand the relevance of these acts to claim 37. It is clear that F5 (receiving the key) occurs before F6 (receiving the packet). This is contrary to claim 37 which requires receiving the key after the packet. This is also clearly shown in Fig. 5, which shows the key being received before the document packets. Applicant respectfully submits that also Fig. 6 shows this, as block 714 clearly refers to “previously received key”.

The dependent claims are patentable at least because they depend on patentable independent claims. Nonetheless, at least some of the dependent claims add patentability over independent claim 37.

Claim 41, for example, requires: “requesting the at least one key after receiving a sufficient number of packets for reconstructing the data file”. Xu does not teach or suggest requesting a key after receiving the sufficient number of packets. Paragraph [0069] to which the Examiner referred relates to a radio network controller (RNC) (not a mobile station!) that needs to request MAC keys. This paragraph and Xu in general do not teach or suggest requesting after receiving a sufficient number of packets. This limitation is not taught by Dillon either, as discussed above regarding claim 37.

Claim 42, for example, requires that the requesting of the at least one key is performed responsive to a user instruction. Applicant could not find any mention of a user in paragraphs [0072] and [0073] of Xu previously referred to by the Examiner. As to paragraphs [0066] and [0068], they do not relate to requesting a key but rather to a general authorization to receive a multicast service.

The Examiner stated that the MAC is a user instruction. Applicant respectfully disagrees. The MAC is a code embedded in the file which can be used by the receiver to verify that the transmitter is an authentic source of data and not a forged source. Applicant does not see any way that the MAC could be interpreted as a user instruction to request a key.

Claim 43, for example, requires that at least a portion of the data file is not encrypted and the user instruction is received after displaying the non-encrypted portion of the file to the user. Xu does not suggest that a data file has both an encrypted and a non-encrypted portion. Neither does Xu mention displaying the non-encrypted portion and only then receiving a user instruction. This is not taught by Dillon, either. The displaying of a catalog is totally different from transmitting a file which is partly encrypted and partly unencrypted.

Independent claim 56

Claim 56- 60 and 62 stand rejected under 35 USC 102(b) as being unpatentable over Xu et al. (US patent publication 2006/0166653) in view of Yaport et al. (US patent publication 2002/0178221).

Applicant respectfully traverses the rejection and respectfully submits that the Examiner has not established a *prima facie* case of obviousness, as at least one limitation of claim 56 is not taught by Xu.

Claim 56 requires “providing at least one of the plurality of receivers with one or more decryption keys ... after the file was transmitted”.

Xu does not teach or suggest that keys are provided after the file was transmitted.

The Examiner referred to paragraphs [0071]-[0074] regarding this requirement, stating that “the mobile station obtains a signing key (signing keys provided to the mobile from the KDC, for the purpose of decrypting the file”)). Applicant acknowledges that Xu states that a key is used to decipher encrypted data. Applicant notes, however, that Xu does not teach or suggest in these paragraphs, or anywhere else that applicant is aware of, that at least one key is provided after the file was transmitted, as required by claim 56. In fact, paragraph [0074] of Xu seems to imply that the key is received by the receiver at the beginning of the multicast session, before the data which needs to be decrypted is received and therefore the key is provided before the file was transmitted.

The Examiner further referred to paragraph [0068] as describing authentication using a key. Applicant respectfully submits, however, that the Examiner did not explain how this paragraph relates to decryption keys being provided after a file was transmitted. The paragraph does not relate at all to when the MAC is transmitted to the receiver, and surely does not state that it is provided to the receiver after the file was transmitted. Applicant respectfully submits that the MAC in the message is not a key, but rather it is a code that requires a key to be decrypted.

The dependent claims are patentable at least because they depend on patentable independent claims. Nonetheless, at least some of the dependent claims add patentability over independent claim 56.

Claim 57, for example, requires providing at least one of the receivers with at least one decryption key for the encrypted file, before transmitting the encrypted file. Taken together with claim 56, at least one receiver receives a key before the transmission of the file and at least one receiver receives a key after the transmission of the file. Paragraph [0069] is silent about whether the key is provided before or after the file. Applicant respectfully notes, however, that if the Examiner is of the opinion the Xu provides the keys before the file as seems to be implied from the rejection of claim 57, then Xu cannot be used to reject claim 56 and its dependents, which

relate to providing keys after the file. Applicant respectfully submits that the MAC in the message ([0068]) is not a key, but rather it is a code that requires a key to be decrypted.

Claim 62, for example, requires that the at least one of the receivers provided with the decryption keys before transmitting the encrypted file are selected at least partially responsive to the number or percentage of acknowledgements provided by the receivers in a given period. This is not taught or suggested by Xu or Yapor. As neither reference suggests the limitation of claim 57, neither reference needs to select which receivers receive the keys before and which receive the keys after the file. Of course, neither reference suggests using the number or percentage of acknowledgements in doing such a selection. The passage of Yapor ([0017]) related to by the Examiner merely discusses transmitting acknowledgements and does not teach or suggest using acknowledgements in deciding which receivers are provided with decryption keys before transmitting the file. Applicant respectfully submits that the Examiner's rationale: "it would have been obvious to a person of ordinary skill at the time the invention was made to implement Xu with Yapor to differentiate receivers, or to assure QoS based on percentage of acknowledgements provided" is not based on the art, which does not discuss differentiating receivers on the one hand and does not result in the requirements of claim 62, on the other hand.

Independent claim 79

Claims 79 and 82 stand rejected under 35 USC 103(a) as being unpatentable over Siren (US patent publication 2002/0006801) in view of Sasvari et al. (US patent publication 2004/0057376).

Claim 80 stands rejected under 35 USC 103(a) as being unpatentable over Siren (US patent publication 2002/0006801) in view of Sasvari et al. (US patent publication 2004/0057376) and Okada (US patent publication 2002/0012327).

Claims 81 and 99 stand rejected under 35 USC 103(a) as being unpatentable over Siren (US patent publication 2002/0006801) in view of Tasman (US patent publication 2002/0080755).

Applicant respectfully traverses the rejection and respectfully submits that the Examiner has not established a *prima facie* case of obviousness, as at least one limitation of claim 79 is not taught or suggested by Sasvari or Siren.

Claim 79 requires base stations having different bandwidth amounts for multicast transmission, dropping data so that the data can be transmitted by each of the base stations on its respective allocated bandwidth and transmitting the non-dropped data substantially synchronously.

This is not taught or suggested by Siren or Sasvari. The Examiner acknowledged that Siren does not teach this limitation. Regarding Sasvari, the Examiner referred to paragraphs [0011] and [0023]. Applicant respectfully points out that the discarding of Sasvari is not carried out by the base stations but rather by policing means (Abstract) which makes sure that users do not use more bandwidth than they are allocated. This is not merely a technical difference, but rather leads to the fundamental difference that the dropping by Sasvari is not intended to achieve and does not achieve substantially synchronous transmissions between the base stations, as required by claim 79. The advantages of synchronous transmission are described, for example, on page 8, lines 6-21 of the specification of the present application.

The dependent claims are patentable at least because they depend on patentable independent claims.

Independent claim 88

Claim 88 stands rejected under 35 USC 103(a) as being unpatentable over Yapor et al. (US patent publication 2002/0178221) in view of Cai et al. (US patent publication 2005/0030966).

Applicant respectfully traverses the rejection and respectfully submits that the Examiner has not established a *prima facie* case of obviousness, as at least one limitation of claim 88 is not taught by either Yapor or Cai.

Claim 88 requires a controller adapted to generate a notification on an upcoming multicast transmission responsive to a received file, to provide the notification through the output interface for transmission and to provide the received file for transmission, without receiving acknowledgements from the receivers on whether they received the notification.

As discussed above regarding claim 1, this is not taught or suggested by the cited art. Paragraph [0040] of Cai, to which the Examiner related does not teach or suggest a controller that determines receivers that did not receive at least a portion of the data file, and the Examiner did not show any hint as to where this is described.

Independent claim 89

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Claims 89-90 stand rejected under 35 USC 103(a) as being unpatentable over Yaport et al. (US patent publication 2002/0178221) in view of Cai et al. (US patent publication 2005/0030966).

In response, claim 89 was amended to include a limitation that on each channel, data of a different multimedia type is received and claim 90 was cancelled. In contrast, in both Yaport and Cai, data repeats are provided on the different channels and there is no division of data types between channels.

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Conclusion

Applicants respectfully submit that in view of the above amendments and arguments the claims are allowable. Allowance of the application is respectfully awaited. If, however, the Examiner does not see fit to allow the claims, applicants respectfully request following the provisions of MPEP 713.01 that the Examiner notify applicant's agent after he has considered the effect of the applicant's current response so that a telephone interview between the Examiner and applicant's agent can be arranged before a further action is issued. Applicant is of the opinion that such a telephone interview can expedite the case to final action.

Applicant's agent can be reached by calling patent attorney, Robert G. Lev at 330-759-1423 or sending an email to applicant's agent (yschatz@israel-patents.co.il).

Respectfully Submitted,
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